Amendments to the Specification:

Please replace the paragraph starting at page 8, line 33, with the following replacement paragraph:

As discussed above, there are a number of different methods for controlling the orientation of the liquid crystals. FIGs. 1a to 1c schematically show the conventional methods for inducing alignment control in liquid crystal electrooptical devices. FIG. 1a shows the conventional rubbed polymer method of orienting both ~~nemantic~~ nematic and ferroelectric ~~displays 10~~ display devices **10a**. In this method, the liquid crystal molecules ~~12~~ **12a** are disposed between surfaces ~~14~~ **14a** on each side of the device ~~10~~ **10a** and aligned parallel to the surfaces ~~14~~ **14a** using rubbed polymer layers or alignment layers ~~16~~ **16a**. There are a number of difficulties associated with this approach, mainly associated with the rubbing procedure that is needed to induce the orientation in the alignment layers ~~16~~ **16a**. In addition, mechanical stress can cause disruption of the liquid crystal structure and in some displays, such as, for example, ferroelectric display's alignment does not always recover after having been perturbed by mechanical stress.

A1

Please replace the paragraph starting at page 9, line 12, with the following replacement paragraph:

A second general method for aligning liquid crystals ~~12~~ **12b** is shown in FIGs. 1b and 1c and uses a phase separated polymer network ~~polymer molecules~~ ~~18~~ **18b** to control alignment and provide mechanical stability, rather than a separate mechanical

A2

alignment layer. There are two general techniques, polymer-stabilized liquid crystals, shown in FIG. 1b, and polymer-dispersed liquid crystals, shown in FIG. 1c. ~~In contrast~~Similar to the use of alignment layers as shown in FIG. 1a, ~~in which~~ the interactions between the liquid crystal molecules ~~12~~ **12a** and the polymer occur only at the interface ~~16~~ between the ~~solid~~ polymer ~~layer~~ **16a** and the liquid crystal molecules ~~12~~ **12a**~~, the polymer-dispersed and polymer-stabilized techniques provide intimate contact between the polymer molecules 18 18b and the liquid crystal 12 12b~~. In ~~this technique~~polymer stabilized liquid crystals, the alignment polymer molecules ~~18~~ **18b** **are** ~~is~~ typically made anisotropic by polymerizing e.g., by photochemically or thermally-triggered polymerization of monomers or cross linking of oligomers or thermally triggered physical association, under the influence of either an alignment layer or ~~by applying~~ an electric field~~, then after the desired orientation of the solvated polymer 18 is generated, the polymer 18 is transformed~~ so that it provides a lasting memory of the orientation state~~, e.g., by photochemically or thermally-triggered polymerization of mesomers or cross linking of oligomers or thermally triggered physical association~~. Although these techniques do improve the mechanical stability of the liquid crystals ~~12~~, ~~the current techniques rely on high concentrations of polymer 18 to achieve cross-linking which can significantly slow down switching times and efficiency. In addition,~~ polymer-dispersed liquid crystals can sometimes require high applied switching voltages and display devices made using both of these techniques tend to be hazy.

A2 cont.